



TOWN OF ARLINGTON

MASSACHUSETTS 02476

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DEPARTMENT OF PLANNING and COMMUNITY DEVELOPMENT

MEMORANDUM

To: Board of Selectmen
Brian Sullivan, Town Manager

From: Mike Rademacher, DPW Director
Laura Wiener, Senior Planner

Date: November 21, 2011

RE: Bicycle and Traffic Improvements in Arlington Center

In June, 2010 the Board had a discussion about bicycles on the sidewalk in Arlington Center, which violates a Town bylaw prohibiting sidewalk bicycle riding. One of the major causes of sidewalk riding in the Center is the confusion resulting from the gap in the Minuteman Bikeway between Swan Place and Route 60. Short-term measures were taken last summer which included new signs and some increased enforcement. The Board asked that staff look into longer term solutions.

The Town received a commitment of funding from MassDOT for \$290,000 to improve safety and mobility at the intersection of Mass. Ave. and Route 60, for bike riders, drivers and pedestrians. The funds come from a program called "Clean Air and Mobility Program", and are targeted to actions that will reduce air pollution by encourage walking and biking and decreasing congestion. These funds can be used for construction, programmed in the year 2013. The Town is paying for the design. The priorities cited in the grant application were:

- Design and implement a Bikeway connection through this intersection
- Adjust medians to accommodate longer left turn vehicle queues, thereby reducing idling time
- Adjust signal timing to improve efficiency and reduce congestion
- Change crosswalk alignments to shorten pedestrian crossing distances

Last spring the Town hired Howard/Stein-Hudson, an experienced traffic engineering firm to work with us to design solutions that improve safety and mobility for bicyclists, drivers and pedestrians in this intersection. The engineers have been working with an Advisory Group with representatives of Public Works, Planning, TAC, and the Arlington Bicycle Advisory Committee. Together we have developed a number of options to improve this intersection for all users. We would like to present them to you, and then hold a public meeting.

The options build on each other, and build in complexity. There are a couple of changes that are included in all the options. They are listed first.

All options include the following improvements:

1. Extend bikeway along the sidewalk edge of Uncle Sam Park, for biking in both directions (P, B,V)
2. Elongated left turn lane on Mystic approaching Mass. Ave, to move more drivers through the intersection during each light cycle. (V)
3. Curb extensions at Jefferson Cutter House and UU Church corners, to shorten crossing distance and time for pedestrians (P)
4. Signal timing adjustments at 3 signals (Chestnut and Mystic, Mystic and Mass. Ave., Mass. Ave and Medford Street).
5. Modernization of signal equipment at Mass/Rte. 60 (P,B,V)
6. Accessible ramps at Swan Place (P,B)

Option 1, Shared Lanes (13')

1. Shared bike and vehicle lane (13') in both directions (B, P)
2. 1b Adds signal at Swan

Option 2, Bike Lanes

1. Bike Lane (5') on both sides (B, P, V)
2. Reduced median to accommodate bike lane width (B)

Option 3, Adds Crossbike (diagonal crossing lane)

1. Bike lanes, as above (B, P, V)
2. Crossbike diagonal crossing from Uncle Sam Park to Cambridge Savings Bank (B)
3. Signal Modifications for Crossbike (B)
4. Median removed to accommodate bike lanes (B)

Option 4, Cycle Track with Parking

1. Crossbike, as above (B)
2. Two way cycle track next to Cambridge Savings Bank, between parking and sidewalk
3. Median removed (B)
4. Signal modifications for crossbike (B)

Option 4B, Cycle Track without Parking

1. Crossbike, as above (B)
2. Two way cycle track next to Cambridge Savings Bank, in current parking lane (B)
3. Parking removed (B)
4. Median retained (V)

P=Pedestrian Improvement

B=Bicycle Improvement

V=Vehicle Driving Improvement

Massachusetts Avenue/ Pleasant Street/ Mystic Street: Improving Mobility

Board of Selectmen

November 21, 2011



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Project Area

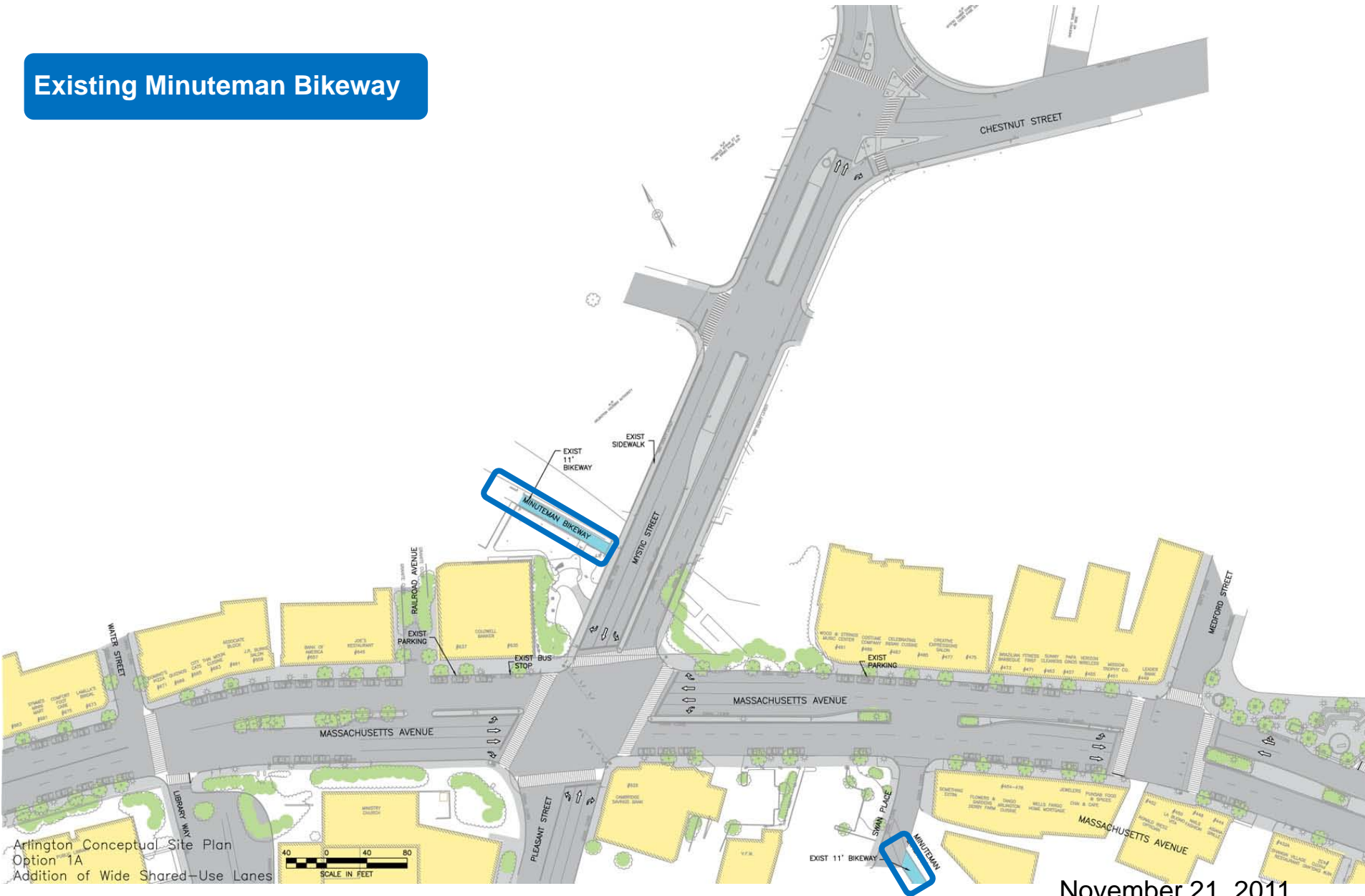


0 75 150 300 450 600 Feet



Existing Conditions

Existing Minuteman Bikeway



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Common Concepts in All Options

2-way cycle track along Uncle Sam Park

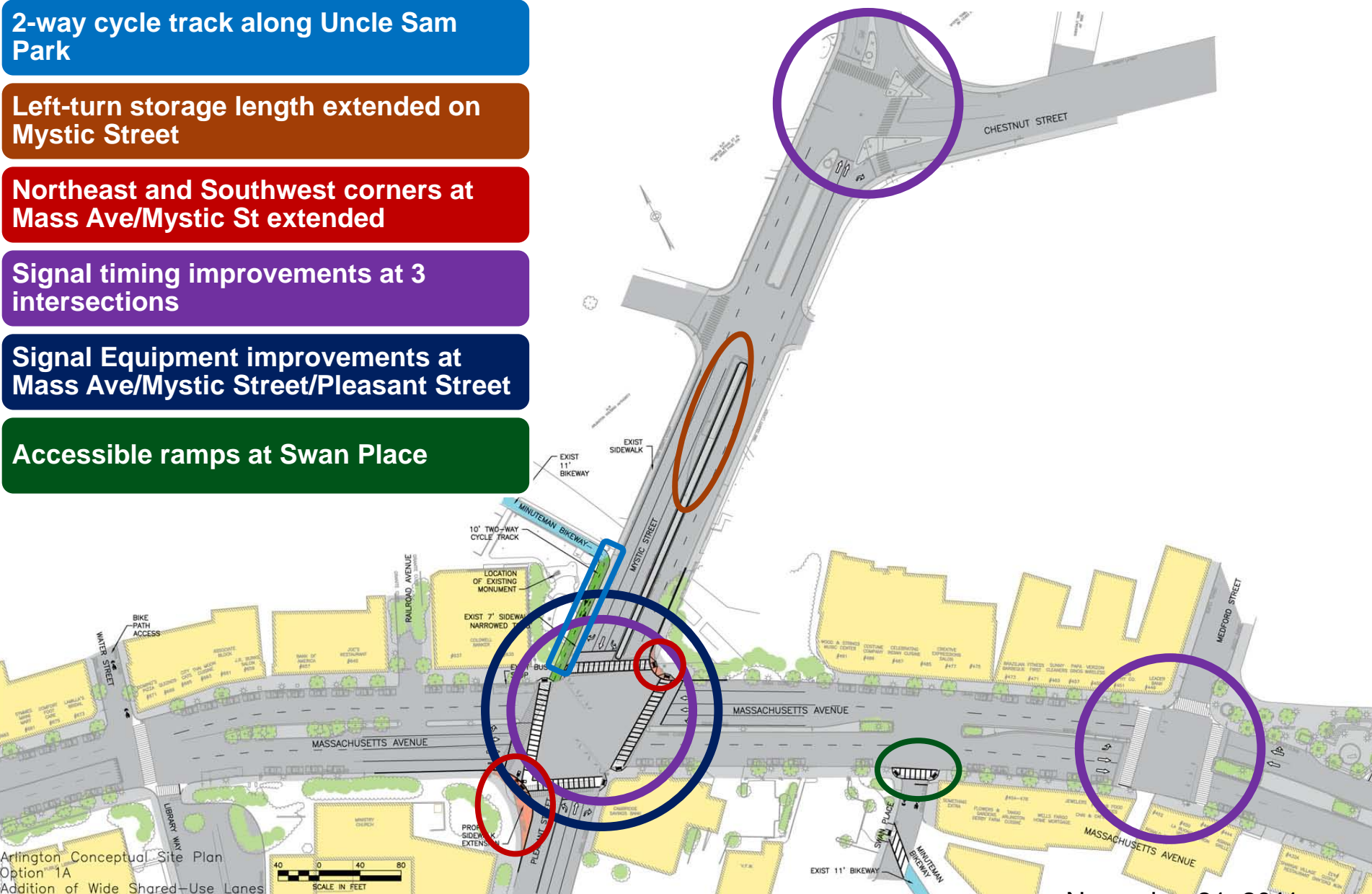
Left-turn storage length extended on Mystic Street

Northeast and Southwest corners at Mass Ave/Mystic St extended

Signal timing improvements at 3 intersections

Signal Equipment improvements at Mass Ave/Mystic Street/Pleasant Street

Accessible ramps at Swan Place



Arlington Conceptual Site Plan
Option 1A
Addition of Wide Shared-Use Lanes

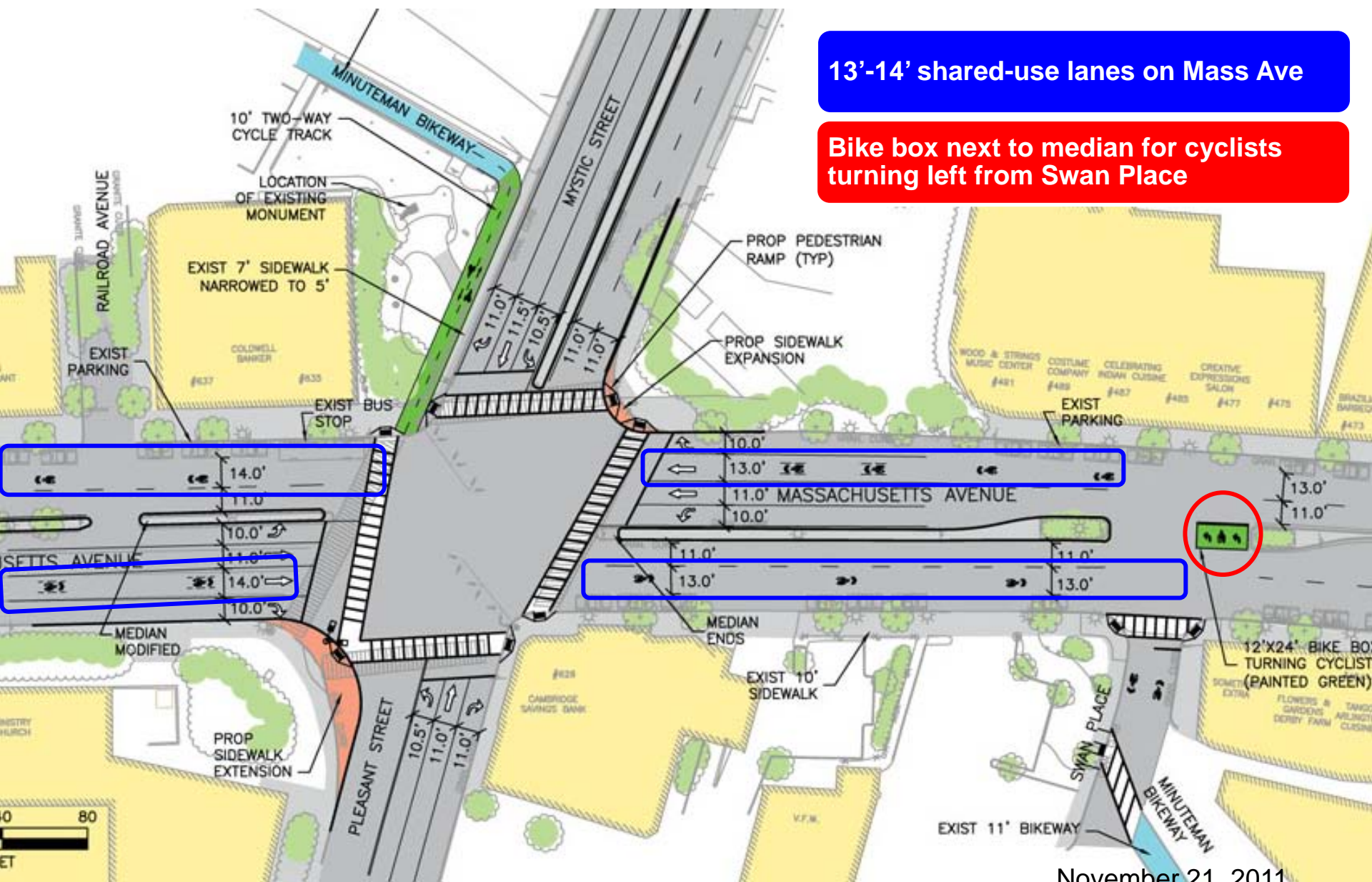
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Option 1 — Shared Lanes

13'-14' shared-use lanes on Mass Ave

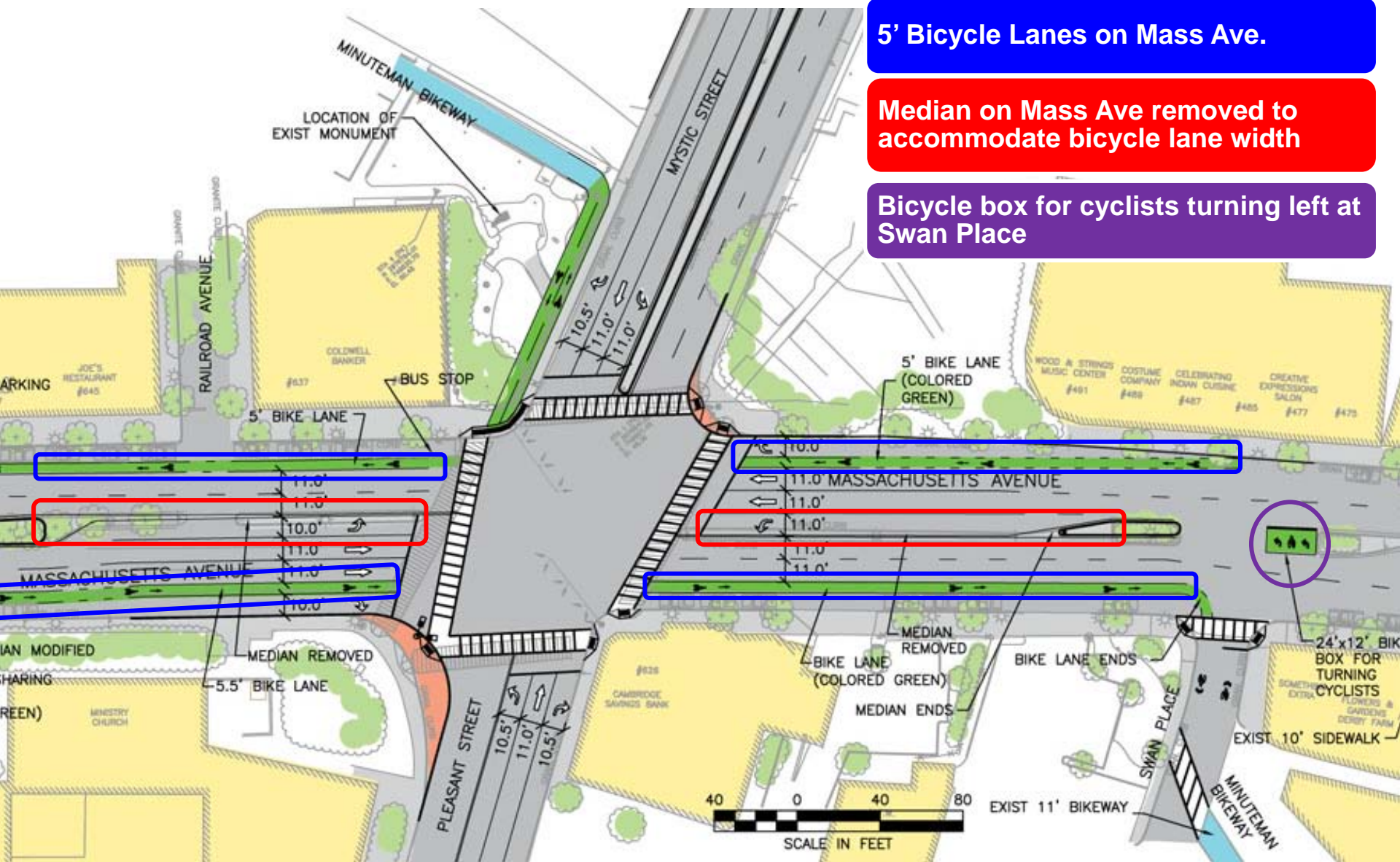
Bike box next to median for cyclists turning left from Swan Place



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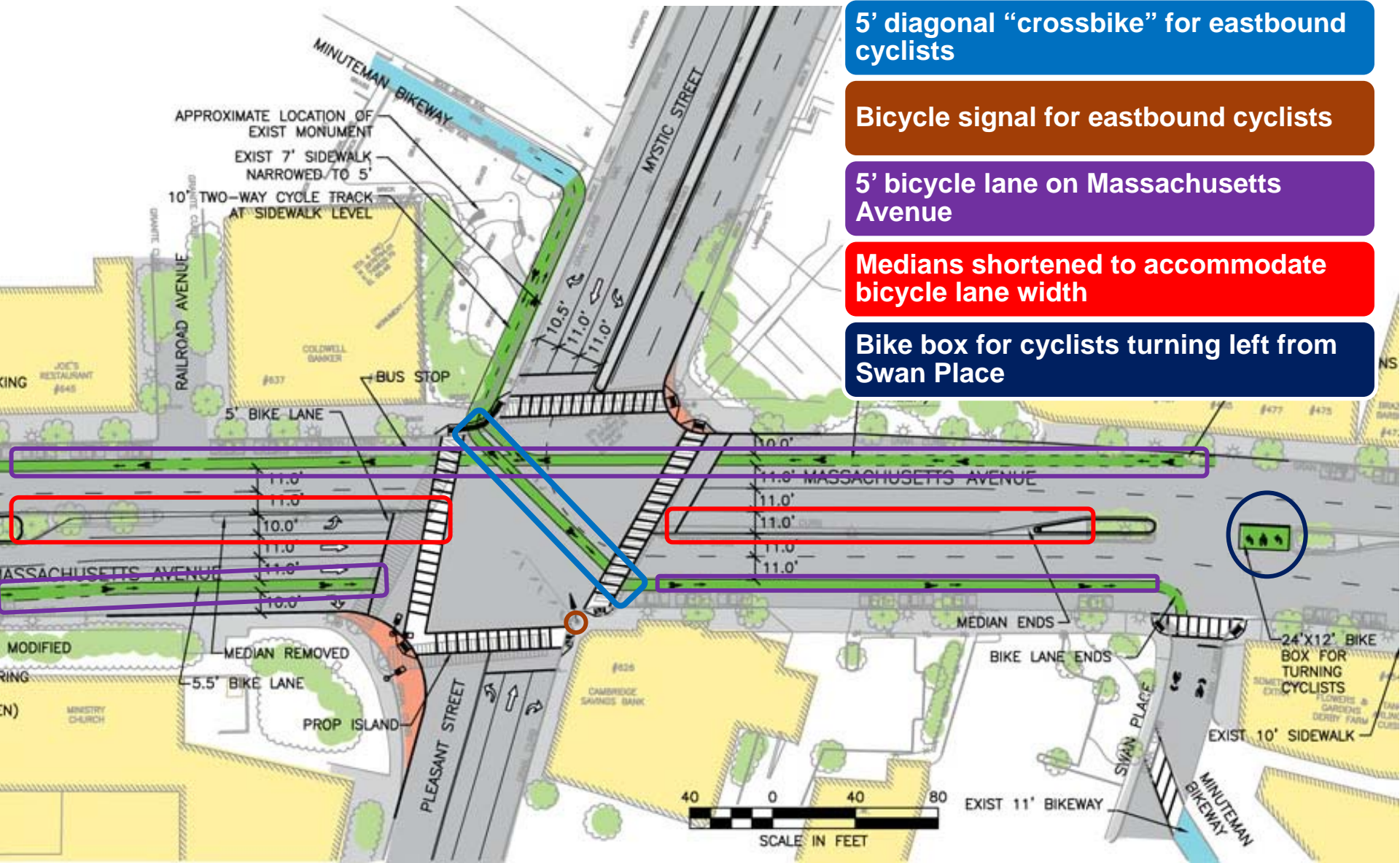
Option 2—Bicycle Lanes



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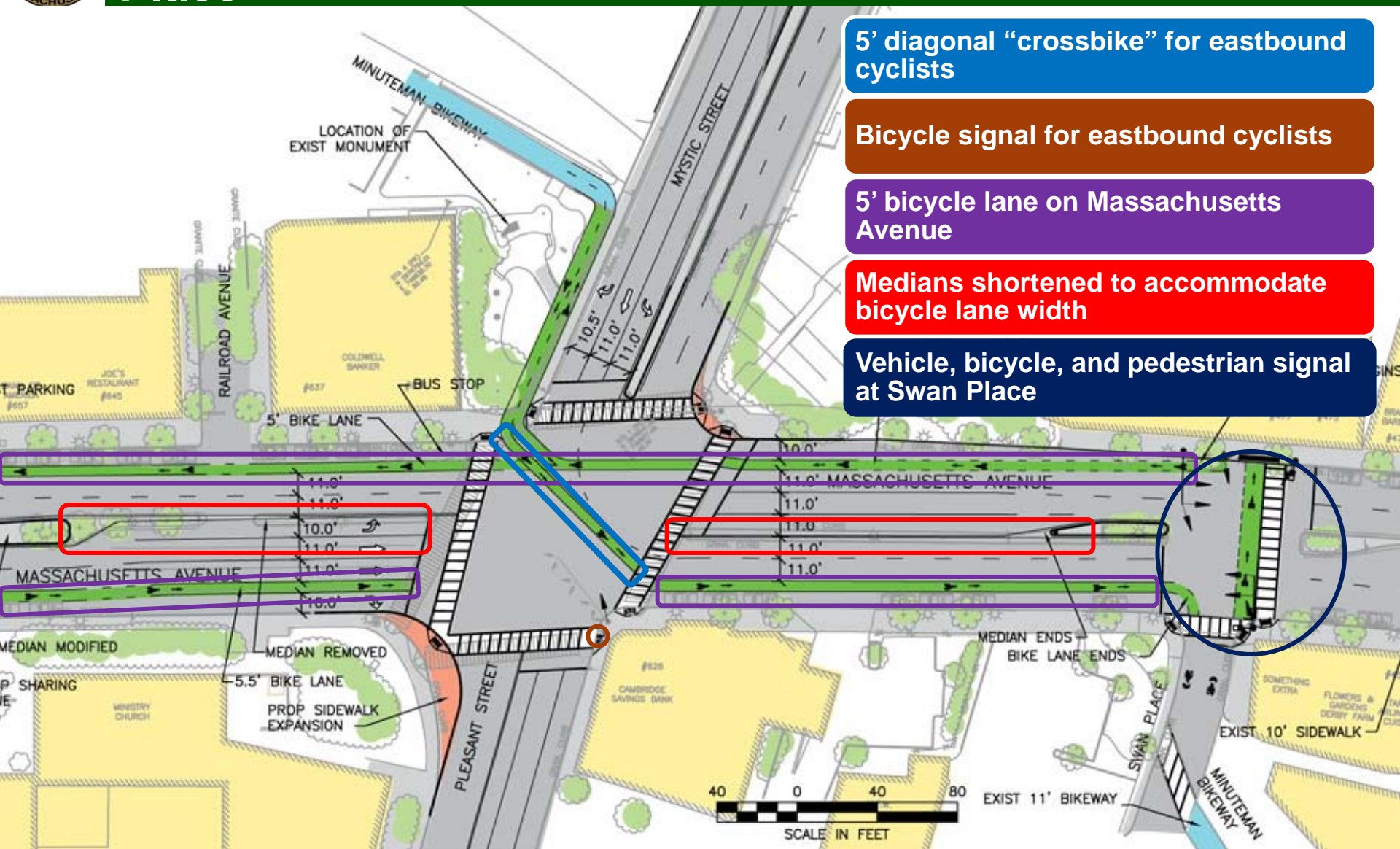


Option 3A—One-Way Crossbike





Option 3B—One-Way Crossbike with Signal at Swan Place







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